February 8, 2002

Federal Communications Commission
Office of the Secretary
Washington, D.C. 20554

Re: In the Matter of RM-10352

The Reply Comments filed by *Paul S. Courson* raise the concern that some individuals with no real experience and knowledge of 160-meters, its history, or use have chosen to drag the Commission's process into the arena of ad hominem attack rather than confining themselves to the technical, regulatory and policy implications of the Briggs-Tippett petition.

Courson claims from "first-hand observations this year by others and myself with multi-faceted expertise on 160 Meters, I am prepared to testify there has NOT been a significant level of weak-signal interference observed against CW activity." As an individual with over 25 years of wide ranging experience on the 160-meter band (including weak signal work, contest activity and "traffic handling" experience), I can testify that the level of inter-mode interference waxes and wanes inversely with the 11-year solar cycle. In as much as the solar cycle is presently near its peak, inter-mode interference should be near its cyclical trough. Unfortunately, even at trough levels the interference is still significantly greater (demonstrated as recently as September 12 by Mr. Hollingsworth's enforcement actions) than historical norms.

This historically high level of inter-mode interference is a primary reason the American Radio Relay League (ARRL) formed a broad based, ad-hoc committee that proposed the most recent revision to the (voluntary) 160-meter bandplan. The earlier bandplan, established nearly 20 years ago in response to the Commission's failure to define separate allocations for wideband and narrowband modes after sharing with LORAN ended, recommended narrowband operation from 1800 to 1850 KHz, shared use of 1840 to 1850 KHz for CW and SSB DX operation, 1850-2000 for SSB and other wideband modes. The "new" bandplan recognizes that sharing did not work and calls for a division by occupied bandwidth. The Briggs-Tippett petition proposes the next logical step in that process, regulatory action.

Coursen concludes: "I urge the Commission to … ENDORSE the new and untested voluntary band plan developed by consensus and in line with the self-policing architecture the FCC has encouraged…" The concept of a voluntary bandplan is certainly not "untested". It has been tested for nearly 20 years and found lacking - or at least requiring specific regulatory support to insure its effectiveness.

Courson asserts his belief, "that Petitioners are waging a questionable effort to push through a regulatory proposal before they lost (sic) their political constituency as interest declines in the use of Morse Code." The Briggs-Tippett petition is not a request for rule making to preserve spectrum for continuous wave telegraphy (CW). While CW is the original "digital communications mode" and has a long an honored history of service, the petition is simply an effort to **separate wideband modes, and narrowband modes.** Wideband modes include: slow scan video (SSTV), low data rate digital telephony, single sideband suppressed carrier telephony (SSB), spectrum inefficient double sideband amplitude modulated telephony (AM) or any other authorized mode of emission with an occupied bandwidth greater than 1 KHz. Narrowband modes include: CW, frequency shift teletype (RTTY), PSK31, minimum shift keying (MSK), multi-tone frequency shift keying (MFSK), and other digital modes with an occupied bandwidth of less than 1 KHz.

As pointed out by *Rauch* and many others, inter-mode interference is inherently asymmetric - an interfering wideband signal will completely fill the passband of a narrow bandwidth receiver making communication impossible. However, a narrow bandwidth signal occupies a very small portion of the passband of a wide bandwidth receiver and can be removed relatively easily with a simple notch filter.

Contrary to the assertion by *Courson,* the Briggs-Tippett petition does not seek regulatory protection specifically for CW. Careful reading of the petition will reveal it seeks the same protection for all narrowband modes as currently exist on every amateur band below 54 MHz. This protection is absolutely vital to provide for the future of the amateur radio service. The fastest growing modes of operation in the amateur high frequency spectrum are those digital modes (PSK31, MSK, MFSK, THROB, and others) generated and decoded with sound cards (dedicated digital signal processors) in a personal computer. It is those new digital transmission modes that represent the experimental frontier of high frequency (HF) amateur operation. The new modulation and coding techniques being developed specifically to deal with atmospheric noise and selective fading represent real opportunities to improve emergency communications and public service. A failure to preserve spectrum free from wideband interference represents a danger to continued development of robust, spectrum efficient digital communication modes.

Finally, *Courson's* February 7, 2002 filing in opposition compares the Briggs-Tippett petition (and continuous wave telegraphy) to a collection of (antique) kerosene barn lanterns. The Commission and other government entities often make regulatory "set asides" for specific purposes in areas other than the amateur radio service. *Courson's* "lighthearted analogy" brings to mind at least three situations analogous to the present request. Specifically:

1) There is not a single television station on channel 37 anywhere in the United States. 608-614 MHz is reserved for RADIO ASTRONOMY - specifically to prevent the very wideband, high power signals from overwhelming very weak signals from space. This, in spite of the literally billions of dollars of economic development that could be generated by allocating the channel in just 25 markets.

2) For years the Commission enforced a "quiet zone" around the National Radio Observatory at Greenbank, West Virginia to prevent all stray electromagnetic radiation from interfering with the work there.

3) Many cities and counties located near observatories require that streetlights and other lighted outdoor signs be shaded to prevent an increase in the terrestrial background from obscuring very weak celestial sources.

In conclusion, approximately 20 years of experience since the end of LORAN operations have provided ample opportunity to evaluate the effectiveness of voluntary bandplans on 160-meters. For example, the group that was the focus of Mr. Hollingsworth's September 12 enforcement action conducted SSB operations on 1823 KHz for more than 15 years openly flouting the previous "voluntary" bandplan. The lack of voluntary, universal compliance with the previous bandplan demonstrates that such plans work only when supported by either specific regulation as on the other amateur HF allocations or by periodic, targeted Commission enforcement action. I urge the commission to **adopt the Briggs-Tippett petition for rulemaking** and by doing so, affirm the standards set by the community of users through an extensive, open, voluntary, self-regulating process.